GLOBAL SANITARY LANDFILL

NEW JERSEY

EPA ID# NJD063160667

EPA REGION 2
CONGRESSIONAL DIST. 06
Middlesex County
Old Bridge Township

Site Description

The 60-acre Global Sanitary Landfill site was licensed by the New Jersey Department of Environmental Protection (NJDEP) to accept non-hazardous waste. The landfill borders Cheesequake Creek Tidal Marsh on three sides. In 1984, after heavy rains, two consecutive high tides occurred in the wetlands, and a portion of the southern side of the landfill collapsed and slid into the adjoining wetlands. As a result, the State closed the landfill. In 1984, the State detected volatile organic compounds (VOCs) seeping from the site into the wetlands. Allegations that drums containing paint, paint thinner, and various solvents were buried in the landfill from 1968 to 1977, were confirmed in a preliminary investigation in 1988. Groundwater immediately underneath the site has become contaminated by pollutants leaching from the landfill. The Sayreville Water Company has five water supply wells within a mile of the site. The water supplies for Sayreville, Lawrence Harbor, South Amboy, and Perth Amboy could potentially be threatened. Cheesequake State Park and Raritan Bay are located close to the site and are used for recreational activities. Commercial fishing is conducted in the area.

Site Responsibility: This site is being addressed through State and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 03/30/89

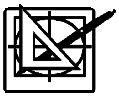
Threats and Contaminants

The water-table aquifer underneath the site is contaminated; however, the extent of off-site contamination wasn't fully characterized before the first Record of Decision (ROD) was signed in September 1991. Leachate seeping from the landfill into the wetlands contains VOCs, including methylene chloride, chloroform, trichloroethylene, and benzene. VOCs have seeped from the landfill into the Cheesequake Creek Tidal Marsh. The health threat posed to the area drinking water, and the ecological threat to the surrounding wetlands, was studied more fully after the 1991 ROD. While the findings indicate no immediate danger, potential threats will continue to exist until the 1991 remedy is put in place and long-term monitoring confirms no further problems.

Cleanup Approach

This site is being addressed in two long-term remedial phases which will focus on the cleanup of the entire site.

Response Action Status



Capping of the Landfill: In 1989, the NJDEP began a study on the feasibility of capping the landfill. Based on that study, EPA and NJDEP selected a modified hazardous waste cap, slope stabilization and leachate collection system in a 1991 ROD as the remedy for the first operable unit (OU1) at the site.

Ground Water, Surface Water, and Surrounding Wetlands: In 1990, the State began a phased investigation into the extent of contamination in the Cheesequake Creek Tidal Marsh and related aquifer. This investigation resulted in a second ROD (OU2), which was signed on September 29, 1997, calling for ground-water monitoring, sediment removal and five years of ecological monitoring of the adjacent wetlands. The contaminated sediment resulted from a leachate seep which discharged at the base of the landfill carrying with it high concentrations of ammonia and other constituents. These contaminated sediments, amounting to less than 5,000 cubic yards, will be excavated and placed on top of the landfill before the cap is put in place. The leachate collection system called for under OU 1 will prevent that type of contamination from reoccurring there, or anywhere along the perimeter of the landfill.

Site Facts: The NJDEP negotiated a cash-out settlement with the owner/operators of the site in October 1992, and then entered into a Consent Decree with other potentially responsible parties

(PRPs) in November 1993 to fund the capping remedy. Now that the second ROD has been signed, the State is expected to negotiate and approve an Amended Consent Decree (ACD) with the PRP Group to include OU-2. The delay in reaching agreement on the ACD is a result of design changes that the PRP Group is proposing for the OU-1 landfill cap. Any such changes must go through a technical review process, and may require an Explanation of Significant Differences (ESD) before they can be implemented under the ACD.

Cleanup Progress 

During 1994 and 1995, the PRP Group held extensive discussions with Transcontinental Pipe Line Corporation (Transco) about relocating its gas transmission line which traversed a portion of the Site to be capped. These negotiations resulted in Transco relocating 1,000 feet of 42-inch gas main north and west of the landfill. This was a very important action that had to be completed before any intrusive work could begin, and was needed both for the protection of the workers who would be on the site, as well as hundreds of residents in nearby apartment houses.

Subsequent to the signing of the November 15, 1993 Consent Decree for the implementation of the OU-1 remedy, the PRP Group began a Pre-Design Investigation (PDI). The PDI included the installation of landfill settlement monuments, as well as in-situ and laboratory testing of the landfill's surface soils. The PDI Report concluded that the landfill was settling at a rate in excess of 1-foot per year and recommended a phased approach to the placement of the cap. Following that approach, geotechnical monitoring points were installed in the fall of 1996 to monitor the behavior of the landfill and the underlying material due to additional loadings of grading fill. Over a three-month period, June to August 1997, 25,000 cubic yards of fill were placed on the 10-acre plateau of the landfill. This material, which was compacted and vegetated, will provide valuable monitoring data as well a base layer for the final cap.

Concurrent with negotiations to incorporate design changes in the ACD, the design contractor for the PRPs has accumulating additional data on the settlement problem, as well as monitoring the groundwater. All the data collected subsequent to the 1994 PDI Report was reported and analyzed in a second PDI Report issued in April 2001. This report it will serve as the basis for the design of a landfill cap which is expected to be lighter and, therefore, more stable than the one identified in the 1991 ROD.